



Safety Data Sheet

United Phosphorus, Inc.

Preparation Date 10-May-2016

Revision date 10-May-2016

Revision Number: 1

1. Identification of the Substance/Preparation and of the Company/Undertaking

Product identifier

Product Description: Elixir Fungicide

Other means of identification

Item#: CANELIX
UN-No UN3077
Registration number(s) 32271 - PCRA Reg number

Recommended use of the chemical and restrictions on use

Recommended use Fungicide.
Uses advised against Activities contrary to label recommendation

Details of the Supplier of the Safety Data Sheet

Supplier Address
United Phosphorus Inc.
630 Freedom Business Center
Suite 402
King of Prussia, PA 19406

Emergency telephone number

Company Phone Number 1-800-438-6071
Emergency telephone number Chemtrec: (800) 424-9300 (24hrs) or (703) 527-3887
Medical: Rocky Mountain Poison Control Center
(866) 673-6671 (24hrs)

2. Hazards Identification

Classification

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

| | |
|---|------------|
| Acute toxicity - Inhalation (Gases) | Category 2 |
| Acute toxicity - Inhalation (Vapors) | Category 2 |
| Acute toxicity - Inhalation (Dusts/Mists) | Category 4 |
| Serious eye damage/eye irritation | Category 1 |
| Skin sensitization | Category 1 |
| Carcinogenicity | Category 2 |
| Reproductive Toxicity | Category 2 |

Label elements

EMERGENCY OVERVIEW

DANGER

Hazard Statements

Fatal if inhaled
Causes serious eye damage
May cause an allergic skin reaction
Suspected of causing cancer
Suspected of damaging fertility or the unborn child

**Appearance** yellow-green**Physical state** solid granular**Odor** Woody**Precautionary Statements - Prevention**

Do not handle until all safety precautions have been read and understood

Wear cold insulating gloves/face shield/eye protection

Do not breathe dust/fume/gas/mist/vapors/spray

Use only outdoors or in a well-ventilated area

In case of inadequate ventilation wear respiratory protection

Contaminated work clothing should not be allowed out of the workplace

Wear protective gloves

Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention

IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

Immediately call a POISON CENTER or doctor/physician

IF ON SKIN: Wash with plenty of soap and water

If skin irritation or rash occurs: Get medical advice/attention

Wash contaminated clothing before reuse

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

Immediately call a POISON CENTER or doctor/physician

Precautionary Statements - Storage

Store locked up

Store in a well-ventilated place. Keep container tightly closed

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards Not Otherwise Classified (HNOC)**OTHER INFORMATION**

- Very toxic to aquatic life with long lasting effects
- Very toxic to aquatic life

3. Composition/information on Ingredients

| Chemical name | CAS-No | Weight % | Trade secret |
|----------------|-----------|----------|--------------|
| Mancozeb | 8018-01-7 | 62.5 | |
| Chlorothalonil | 1897-45-6 | 12.5 | |

If CAS number is "proprietary", the specific chemical identity and percentage of composition has been withheld as a trade secret.

4. First aid measures

FIRST AID MEASURES**Eye contact**

Hold eye open and rinse slowly and gently with water for 15 - 20 minutes. Remove contact lenses, if present, after 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.

Skin contact

Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.

| | |
|-------------------|---|
| Inhalation | Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a physician or poison control center immediately. |
| Ingestion | Call a physician or poison control center immediately. Have person sip a glass of water if able to swallow. Clean mouth with water. Never give anything by mouth to an unconscious person. |

Most Important Symptoms and Effects, Both Acute and Delayed

Most Important Symptoms and Effects No information available.

Indication of Any Immediate Medical Attention and Special Treatment Needed

Notes to physician No information available.

5. Fire-fighting measures

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media No information available.

Specific hazards arising from the chemical

No information available.

Hazardous combustion products Elevated temperatures can cause decomposition to potentially toxic gases.

Explosion data**Protective equipment and precautions for firefighters**

Use personal protective equipment. As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal Precautions Avoid contact with skin and eyes. Provide adequate ventilation. Use personal protective equipment.

Environmental Precautions

Environmental precautions Consult a regulatory specialist to determine appropriate state or local reporting requirements, for assistance in waste characterization and/or hazardous waste disposal and other requirements listed in pertinent environmental permits.

Methods and material for containment and cleaning up

Methods for Clean-Up Sweep up and shovel into suitable containers for disposal.

7. Handling and Storage

Precautions for safe handling

Handling Avoid breathing dust. Avoid contact with skin and eyes. In case of insufficient ventilation, wear suitable respiratory equipment.

Conditions for safe storage, including any incompatibilities

Storage Keep tightly closed in a dry and cool place. Keep out of the reach of children.

incompatible materials No information available.

8. Exposure Controls/Personal Protection

| | |
|--------------------------------------|---|
| Exposure guidelines | This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies. |
| Engineering controls | Investigate engineering techniques to reduce exposures. Local mechanical exhaust ventilation is preferred. Consult ACGIH ventilation manual or NFPA Standard 91 for design of exhaust systems. |
| Personal protective equipment | |
| Eye/Face Protection | Where there is potential for eye contact have eye flushing equipment available. Use eye protection to avoid eye contact. |
| Skin protection | Socks and footwear. Wear protective gloves/clothing. |
| Respiratory protection | Where airborne exposure is likely, use NIOSH approved respiratory protection equipment appropriate to the material and/or its components. Full facepiece equipment is recommended and, if used, replaces need for face shield and/or chemical goggles. If exposures cannot be kept at a minimum with engineering controls, consult respirator manufacturer to determine appropriate type equipment for given application. Observe respirator use limitations specified by NIOSH or the manufacturer. For emergency and other conditions where there may be a potential for significant exposure, use an approved full face positive-pressure, self-contained breathing apparatus. Respiratory protection programs must comply with 29 CFR 1910.134. |

General hygiene considerations

Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing before re-use. Wash hands before breaks and immediately after handling the product. Wear suitable gloves and eye/face protection.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

| | | | |
|---|--------------------------|---------------------------------|-------|
| Physical state | solid granular | Odor | Woody |
| Appearance | yellow-green | | |
| color | No information available | | |
| Property | <u>VALUES</u> | <u>Remarks/ • Method</u> | |
| pH | 7 | | |
| Melting point/freezing point | No information available | | |
| Boiling Point/Range | No information available | | |
| Flash Point | | | |
| Evaporation Rate | No information available | | |
| Flammability (solid, gas) | No information available | | |
| Flammability limit in air | | | |
| Upper Flammability Limit | No information available | | |
| Lower Flammability Limit | No information available | | |
| vapor pressure | No information available | | |
| Vapor Density | No information available | | |
| Specific gravity | No information available | | |
| Water solubility | No information available | | |
| Solubility in Other Solvents | No information available | | |
| Partition coefficient: n-octanol/water | No information available | | |
| Autoignition temperature | No information available | | |
| Decomposition temperature | No information available | | |
| Viscosity, kinematic | No information available | | |
| Dynamic viscosity | No information available | | |
| Explosive properties | No information available | | |
| Oxidizing properties | No information available | | |

OTHER INFORMATION

| | |
|------------------|--------------------------|
| Softening point | No information available |
| molecular weight | No information available |
| VOC Content | No information available |
| density | No information available |
| Bulk density | No information available |

10. Stability and Reactivity

Reactivity

no data available

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

None under normal processing.

Conditions to avoid

Excessive heat and open flame.

incompatible materials

No information available.

Hazardous decomposition products

No information available.

11. Toxicological Information

Information on Likely Routes of Exposure

| | |
|---------------------|--|
| Inhalation | May be harmful if inhaled. |
| Eye contact | Causes substantial but temporary eye injury. |
| Skin contact | May cause irritation. |
| Ingestion | MAY BE HARMFUL IF SWALLOWED. |

Component Information

The following relates to the active ingredient(s):
 Mancozeb:
 Acute oral LD50 (rat) = >5.0 g/kg
 Acute dermal LD50 (rabbit) = >2.0 g/kg
 Acute Inhalation LC50 (rat) = >5.2 mg/L - 4 hr

Information on Toxicological Effects

Symptoms No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Sensitization No information available.
Mutagenic effects No information available.
Carcinogenicity Mancozeb:
 The effects in animals from repeated high inhalation dose of mancozeb dust equivalent to 150 -250 times the AEL include reduced body weight, inflammation of the lungs, and abnormal thyroid function.

 Toxic effects in animals from repeated ingestion of high doses of Mancozeb include reduced body weight and thyroid effects. In a different study, repeated dosing caused toxic and neuropathological effects in male and female rats which included compound-related

mortality, decreased body weight, impaired hind limb motor activity and histopathological evidence of nerve damage. The no-observable effect level was 125 ppm.

Increased incidences of thyroid tumors and ocular lesions were observed in rats administered 750 ppm (equivalent to approximately 35 mg/kg/day) of mancozeb in their diet for two years. Mancozeb is considered to show weak carcinogenic activity. Tests in some animals indicate that mancozeb may produce embryo and fetal toxicity, but only at maternally toxic doses. Multi-generation studies in animals demonstrate no reproductive toxicity. Chlorothalonil:

No evidence of carcinogenicity in dogs after administration for up to one year. Squamous cell adenomas were observed in the forestomach of both rats and mice. This observation is not relevant to humans as humans have no anatomical equivalent of a forestomach.

Comprehensive dietary and worker exposure studies have shown exposure levels for humans to be well below these threshold levels - in addition surveillance of chlorothalonil plant workers for many years has not demonstrated any increase in oncogenic potential to humans.

| Chemical name | ACGIH | IARC | NTP | OSHA |
|-----------------------------|-------|----------|-----|------|
| Chlorothalonil 1897-45-6 | - | Group 2B | | X |

| | |
|---------------------------------|---------------------------|
| Reproductive effects | Not Available. |
| STOT - Single Exposure | No information available. |
| STOT - Repeated Exposure | No information available. |
| Aspiration hazard | No information available. |

Numerical Measures of Toxicity - No information available

12. Ecological Information

ecotoxicity

Mancozeb = Rainbow trout = 0.73 mg/L 96 hr
 Fathead minnow 0.57 mg/L 96 hr
 Bluegill sunfish = 0.84 mg/L 96 hr
 Freshwater algae = 0.43 mg/L 72 hr
 Chlorothalonil =
 Bee LC50/EC50 = >181 ug/bee
 Waterflea LC50/EC50 = 0.069 ppm
 Trout LC50/EC50 = 0.04 ppm
 Bobwhite quail LC50/EC50 = >5.200 ppm

Persistence/Degradability

No information available.

Bioaccumulation/ Accumulation

Bioaccumulative potential.

| Chemical name | Log Pow |
|-----------------------------|---------|
| Chlorothalonil 1897-45-6 | 2.9 |

Other Adverse Effects

No information available

13. Disposal Considerations

Waste Treatment Methods

Waste Disposal Method

Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide or rinsate is a violation of Federal law. If the wastes cannot be disposed of by use or according to label

instructions, contact your State Pesticide or Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

Contaminated packaging Refer to product label.

14. Transport Information

| | |
|-----------------------------|--|
| <u>DOT</u> | When shipped domestically by highway in non-bulk containers this product can be shipped as not regulated. When shipped in bulk, by vessel, or internationally use the IMDG shipping description: |
| UN-No | UN3077 |
| Proper shipping name | Environmentally hazardous substances, solid, n.o.s (Mancozeb) |
| Hazard class | 9 |
| Packing group | PG III |
| <u>TDG</u> | When shipped in Canada domestic highway non-bulk this product can be shipped as Not regulated as per TDG 1.45.1 In bulk - use IMDG description |
| <u>ICAO</u> | |
| UN-No | UN3077 |
| Proper shipping name | Environmentally hazardous substance, solid, n.o.s (Mancozeb) |
| Hazard class | 9 |
| Packing group | PG III |
| Description | Marine Pollutant |
| <u>IATA</u> | |
| UN-No | UN3077 |
| Proper shipping name | Environmentally hazardous substances, solid, n.o.s (Mancozeb) |
| Hazard class | 9 |
| Packing group | PG III |
| Description | Marine Pollutant |
| <u>IMDG/IMO</u> | |
| UN-No | UN3077 |
| Proper shipping name | Environmentally hazardous substances, solid, n.o.s (Mancozeb) |
| Hazard class | 9 |
| Packing group | PG III |
| EmS No. | F-A, S-F |
| Marine Pollutant | Yes |

15. Regulatory Information

This chemical/product is a pesticide product registered by the PMRA and is subject to specific label requirements under these regulations. The requirements may differ classification and hazard information required for safety data sheets and for labels of non-pesticide products. The following is information as required on the registered product label.

signal word CAUTION

Keep out of Reach of Children. Causes moderate eye irritation. Potential skin sensitizer. Toxic to aquatic organisms.

International Inventories

| | |
|-----------------|-----------------|
| USINV | Does not comply |
| DSL/NDSL | Does not comply |
| EINECS/ | Does not comply |

ELINCS
ENCS Does not comply
China Does not comply
KECL Does not comply
PICCS Does not comply
AICS Does not comply
TSCA Does not comply

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECS - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

Federal Regulations

SARA 313
Y

SARA 311/312 Hazardous Categorization

Acute health hazard yes
Chronic health hazard yes
Fire hazard No
Sudden release of pressure hazard No
Reactive Hazard No

CERCLA
RCRA

Pesticide Information

State Regulations

| Component | CAS-No | CATEGORY | California Prop. 65 | Non-additive, corrosive chemical type |
|--------------------------------------|-----------|------------|---------------------|---------------------------------------|
| Mancozeb 8018-01-7 (62.5) | 8018-01-7 | Carcinogen | Carcinogen | |
| Chlorothalonil 1897-45-6 (12.5) | 1897-45-6 | Carcinogen | Carcinogen | |

State Right-to-Know

International regulations

U.S. EPA Label information

EPA Pesticide registration number 32271 = PCRA Reg number

16. Other Information

NFPA HEALTH 2 flammability 0 Instability 0 Physical hazard -

Preparation Date 10-May-2016

Revision date 10-May-2016

Revision Summary

Add to system

Disclaimer

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End of MSDS